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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/418,119	10/14/1999	ANGSHUMAN SAHA	239604	8445

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EXAMINER

NGUYEN, DUNG X

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 04/15/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/418,119

Applicant(s)

SAHA ET AL.

Examiner

Dung X Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17 - 22 and 31 - 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17 - 22 and 31 - 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed on February 19, 2004 but are moot in view of the new ground(s) of rejection bases on the new found references. Claims 1 – 16, 23 – 30, and 37 – 41 have been canceled.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claim 31** recites the limitation "the single condition" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 17 and 18 are rejected** under 35 U.S.C. 102(b) as being anticipated by Bartow et al. (US patent # 5,357,608).

Regarding claim 17, Bartow et al. discloses (figures 8s and column 2, line 4 to column 3, line 2):

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- Requesting synchronization from a first device to a second device when the first device does not have synchronization (one can recognize the interleave logic 220 as the first device and the interleave logic 230 as the second device, or vice versa);
- Receiving a request for synchronization at a first device from a second device, the first device then becoming synchronized (column 2, lines 3 – 5);
- Transmitting data from a first device to a second device, the first device being synchronized, the first device having received from the second device a synchronization signal indicating that the second device is synchronized (column 2, lines 4 – 49).

Regarding claim 18, Bartow et al. further discloses that wherein the step of transmission data, the synchronization signal includes at least one of a synchronization request from the second device and start-of-pocket indicator from data transmitted by the second device (column 2, line 3 to column 3, line 2 and column 11, line 61 to column 12, line 34).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 19 - 21 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Bartow et al. (US patent # 5,357,608), further in view of Galyas et al. (US patent # 6,205,157 B1).

Regarding claim 19, Bartow et al. differs from the instant claimed invention that it does not further show the step of becoming unsynchronized at one or more of the plurality of word

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device in response to receiving a loss-of-sync signal. However, Galyas et al. discloses the step of unsynchronized at a word device in response to receiving a loss-of-sync signal (column 5, lines 51 – 64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Bartow et al. and Galyas et al to provide full requirements of the claimed invention without effort for using synchronization data to control transmissions (abstract of Galyas et al.).

Regarding claim 20, Bartow et al. and Galyas et al. differ from the instant claimed invention that they do not further show the step of a loss-of-sync signal being generated by a deserializer included in the device. However, since Galyas et al. has disclosed the step of unsynchronized at a word device in response to receiving a loss-of-sync signal (column 5, lines 51 – 64), a particular device to generate it being on hand of one in ordinary of the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Bartow et al. and Galyas et al to provide full requirements of the claimed invention without effort for using synchronization data to control transmissions (abstract of Galyas et al.).

Regarding claim 21, Bartow et al. further discloses:

- Detecting a bad control word at a first device from a second device; and
- Requesting synchronization from a first device to a second device, the first device having received a bad control word from the second device (column 2, line 3 to column 3, line 2 and column 11, line 61 to column 12, line 34).

9. **Claim 22 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Bartow et al. (US patent # 5,357,608), Galyas et al. (US patent # 6,205,157 B1), and further in view of Prentice et al. (US patent # 6,397,042 B1).

Regarding claim 22, Bartow et al and Galyas et al. differ from the claimed invention that they do not show the steps of wherein the word devices including serializers and deserializers that satisfy a SERDES specification for control characters, and a bad control word received by a device is inconsistent across deserializers of the device.

However, Prentice et al. discloses (figure 1) that the serial lines connect the sereializer of the first word device 10 to the deserializer of the second device 12 and the serializer of the second word device 12 to the deserialier of the first word device 10 (column 2, lines 26 – 53). Since the bad control word received by a device is inconsistent across deserializers of the device and should be corrected to satisfy a SERDES specification for control characters, and the corrected actions are on hand of one in ordinary of the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Bartow et al., Galyas et al., and Prentice et al. to provide full requirements of the claimed invention for using synchronization data to control transmissions (abstract of Galyas et al.).

10. **Claim 31 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Bartow et al. (US patent # 5,357,608), further in view of Hall et al. (US patent # 4,903,321).

Regarding claim 31, the limitations are analyzed in the same manner set forth as claim 17. Bartow et al. differs from the instant claimed invention that it does not further show the step of “excepting for a single condition that all bad control words received in the threshold number are separated by a synchronized data packet.”

However, Hall et al. teaches all bad control messages (column 33, lines 33 – 36) received in the SWR thresholds (column 11, lines 20 – 57) being separated (column 6, lines 15 – 18) by a synchronized (column 34, lines 38 – 44) packet (column 45, lines 42 – 44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Bartow et al. and Hall et al. to provide full requirements of the claimed invention for improving the communication system.

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11. **Claims 32 and 33 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Bartow et al. (US patent # 5,357,608), Hall et al. (US patent # 4,903,321), and further in view of Galyas et al. (US patent # 6,205,157 B1).

Regarding claims 32 and 33, respectively, Bartow et al. and Hall et al. differ from the instant claimed invention that they do not further show the step of wherein the threshold number of bad control words is one (substantial in claim 32) or greater than one (substantial in claim 33). However, Galyas et al. discloses the step of unsynchronized at a word device in response to receiving a loss-of-sync signal (i.e. threshold can be any number, column 5, lines 51 – 64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Bartow et al., Hall et al., and Galyas et al. to provide full requirements of the claimed invention without effort for using synchronization data to control transmissions (abstract of Galyas et al.).

12. **Claims 34 – 36 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Bartow et al. (US patent # 5,357,608), Hall et al. (US patent # 4,903,321), Galyas et al. (US patent # 6,205,157 B1) and further in view of Prentice et al. (US patent # 6,397,042 B1).

Regarding claim 22, Bartow et al., Hall et al., and Galyas et al. differ from the claimed invention that they do not show the steps of wherein

the first word device and the second word device each include a plurality of serializers and deserializers;

the serial lines connect the serializers of the first word device to the deserializers of the second word device and vice versa;

the serializers and the deserializers of the first word device and the second word device satisfy a SERDES specification for control characters.

However, Prentice et al. discloses (figure 1) that the serial lines connect the serializer of the first word device 10 to the deserializer of the second device 12 and the serializer of the

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second word device 12 to the deserialier of the first word device 10 (column 2, lines 26 – 53). From that, it would have been obvious to one in ordinary skill in the art at the time the instant claimed invention was made to implement the first and the second word devices each include a plurality of serializers and deserializers and connecting the serializers of the first word device to the deserializers of the second device anf vice versa. Since the bad control word received by a device is inconsistent across deserializers of the device and should be corrected to satisfy a SERDES specification for control characters, and the corrected actions are on hand of one in ordinary of the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Bartow et al., Hall et al., Galyas et al., and Prentice et al. to provide full requirements of the claimed invention for using synchronization data to control transmissions (abstract of Galyas et al.).

Regarding claims 35 and 36, respectively, Bartow et al., Hall et al., Galyas et al., and Prentice et al. differ from the instant claimed invention that they do not further show the step of wherein the threshold number of bad control words is one (substantial in claim 32) or grater than one (substantial in claim 33). However, Galyas et al. discloses the step of unsynchronized at a word device in response to receiving a loss-of-sync signal (i.e. threshold can be any number, column 5, lines 51 – 64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Bartow et al., Hall et al., and Galyas et al to provide full requirements of the claimed invention without effort for using synchronization data to control transmissions (abstract of Galyas et al.).

Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (703) 305-4892. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:30 PM.

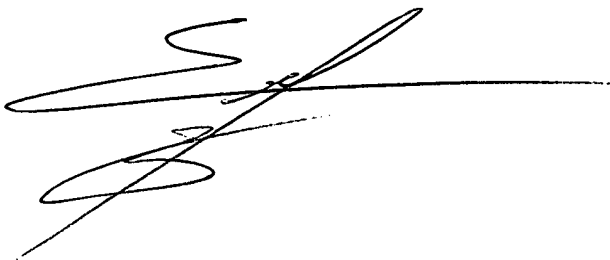
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Ghayour Mohammad H. can be reached on (703) 306-3034. The fax number for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

DXN

March 13, 2004

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.